



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,861	11/19/2003	Otto Gosweiler	010564/00081	5610
25223	7590	07/03/2007		
WHITEFORD, TAYLOR & PRESTON, LLP ATTN: GREGORY M STONE SEVEN SAINT PAUL STREET BALTIMORE, MD 21202-1626			EXAMINER LEWIS, KIANDRA CHARLE	
			ART UNIT 3772	PAPER NUMBER
			MAIL DATE 07/03/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/715,861

Applicant(s)

GOSWEILER, OTTO

Examiner

Kiandra C. Lewis

Art Unit

3772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11/19/2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 26-42 is/are rejected.
- 7) ☒ Claim(s) 17-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/19/2007 1/23/2007.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claim 1-7, 9, 10, 26, ~~and~~ <sup>and 41-42</sup> 30, 39<sup>PUB</sup> are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,666,209 to Bennett et al.

3. As to claim 1, Bennett et al. disclose a powered air-purifying respirator (PAPR) having a gas mask (12) having a filter port to provide filtered air (fig. 1); a blower operatively connected to the filter port of the gas mask, the blower being capable of forcing air to the gas mask (col. 5, lines 11-23); and a detection and control device operatively connected to the blower which detects a pressure

Art Unit: 3772

condition within the gas mask and controls operation of the blower (col. 5, lines 24-37).

4. As to claim 2, Bennett et al. disclose a motor (16) to operate the blower (col. 5, lines 18-23).

5. As to claim 3, Bennett et al. disclose the motor of the blower is driven by a battery source (18).

6. As to claims 4 and 5, Bennett et al. disclose that the power source is a battery (18).

7. As to claim 6, Bennett et al. disclose that the power source is connected to a processor (col. 5, lines 21-24).

8. As to claim 7, Bennett et al. disclose that the power source is connected to the processor via a conductive element (col. 5, lines 19-24).

9. As to claim 9, Bennett et al. disclose the processor and the blower (13) are connected by coupling (fig. 1).

10. As to claim 10, Bennett et al. disclose a control (19) connected to the processor (col. 5, lines 19-24) capable of transmitting signals to the blower.

11. As to claim 26, Bennett et al. disclose a pressure sensor (col. 6, lines 64-66).

12. As to claim 30, Bennett et al. disclose that the sensor will be connected to the processor, and the power source to the processor and blower (fig. 1).

13. As to claim 39, Bennett et al. disclose a filter

14. As to claim 41, Bennett et al. disclose a gas mask (12) having a filter port used to provide filtered air; a blower operatively connected to the filter port of the

Art Unit: 3772

gas mask, the blower being capable of forcing air to the gas mask (col. 5, lines 11-23) wherein the blower is operated by a motor driven by a portable energy source; a pressure sensor (col. 6, lines 64-66) disposed in a mask and operatively connect to the blower (fig. 1), wherein the pressure sensor detects an air pressure in the mask and controls an operation of the blower; and a processor (col. 5, lines 21-24) connect to the pressure sensor via a first conductive element and connected to the power source via a second conductive element (col. 5, lines 19-24) , wherein the processor is capable of receiving a signal from the pressure sensor to terminate the operation of the blower when the air pressure in the mask is at a high level and receives a signal from the pressure sensor to activate the operation of the blower air flow when the air pressure in the mask is at a low level.

15. As to claim 42, Bennett et al disclose, a gas mask (12) having a filter port used to provide filtered air; blower means for blowing air to the mask (col. 5, lines 11-23), power means for providing power to said blower means (18) detection means for detecting a pressure condition in the mask and sending a signal containing pressure condition information to control said blower means (col. 6, lines 64-66); and processing means (col. 5, lines 21-24) for processing the pressure condition information signal and transmitting the pressure condition information signal to said blower means, wherein the pressure condition information signal instructs termination of the operation of said blower means for blowing when the air pressure in the mask is at a high level and the pressure

Art Unit: 3772

condition information signal instructs activation of the operation of said blower means for blowing when the air pressure in the mask is at a low level.

***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

*218* 18. Claims 11-16<sup>38+40</sup> are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al. '209 in view of Mittelstadt et al. US 2002/0195109.

19. As to claim 11, Bennett et al. disclose the limitations of the base claim but do not expressly state that the device further includes an outflow valve integrated within the mask. However, Mittelstadt et al. disclose a valve to be used in conjunction with a filtering facemask. Mittelstadt et al. disclose that the valve is configured in such a manner that the mask will release air through the valve when the person exhales and retains air within the mask when the valve is in the

Art Unit: 3772

closed position [0005]. It would have been obvious to one having ordinary skill in the art at the time of the invention to mask with a valve as disclosed by Mittelstadt et al. in the invention of Bennett et al. for the purpose of protecting the breathing zones of users from unwanted gases, vapors, and particulates [0001].

20. As to claim 12, the above combination teaches that the outflow valve is in open position during exhalation '109 [0005].

21. As to claim 13, the above combination teaches that the outflow valve is in the closed position during inhalation '109 [0004].

22. As to claims 14-16, 38, 40 the above combination does not expressly state that there is an optoelectric device that detects a position of the outflow valve. However the above combination teaches that there is a sensor that detects the pressure of the gas flow. It is inherent that the pressure may vary depending on if the valve is opened or closed. Therefore it would have been obvious to one having ordinary skill in the art to determine if the valve position is opened or closed depending on the pressure of the outflow. Furthermore, the applicant has not provided any criticality to this feature stating that it is used for a particular purpose, provides an advantage, or solves a stated problem and it would have been obvious that the device would have worked just as well with a pressure sensor as disclosed by the above combination.

23. Claims 8, 27-29 and 31-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al.

Art Unit: 3772

24. As to claim 8, it would have been obvious to one having ordinary skill in the art at the time of the invention that the

25. As to claim 27 and 28, it would have been obvious to one having ordinary skill in the art at the time of the invention that if a pressure sensor is disclosed within the device it would detect the pressure of the mask whether it is an absolute or relative pressure.

26. As to claim 29, Bennett et al. teach a vent integrated with mask (fig. 2).

27. As to claims 31-37, Bennett et al. does not expressly state that the pressure sensor transmits a signal to the processor to reduce air flow, terminate air flow, or increase air flow however it would have been obvious to anyone having ordinary skill in the art at the time of the invention that if a pressure sensor is taught in the device it will detect the pressure and send a signal to ensure that the device is working in the most efficient manner to treat the patient.

### ***Conclusion***

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,659,101.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiandra C. Lewis whose telephone number is 571-272-7517. The examiner can normally be reached on Mon-Thurs 9AM-6PM and alternating Fridays 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on 571-272-4940. The



Art Unit: 3772

fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCL

*Patricia Bianco*  
PATRICIA BIANCO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700  
6/23/07